

General Information

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Contracting Office Address

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Description

Reponses to this combined synopsis/solicitation No. DG133E-02-RP-0028 have been extended from 3:00 p.m., Friday, August 30, 2002, to 1:00 p.m., Thursday, September 12, 2002. This is a combined synopsis/solicitation for commercial items prepared in accordance with the format in FAR subpart 12.6 as supplemented with additional information included in this notice. The National Oceanic and Atmospheric Administration (NOAA) has a requirement to receive, process and rebroadcast operational environmental satellite image data from Eumetsat's Meteosat Second Generation (MSG) High Rate Information Transmission (HRIT). This announcement constitutes the only solicitation of the requirements, with the exception of additional background material contained in the HRIT Project Web Pages, available on the public Internet at <http://osd.noaa.gov/hrit>. Proposals are hereby requested and a written solicitation will not be issued. This is Request For Proposal Number # DG133E-02-RP-0028. If there are any inconsistencies between this synopsis/solicitation and the HRIT Project Web Pages cited, this solicitation shall take precedence. This combined synopsis/solicitation incorporates provisions and clauses that are in effect through the Federal Acquisition Regulation Circular 2001-08. This solicitation is for a single

award of a Firm-Fixed-Price commercial item contract at fair market prices. The Government hereby requests that Offerors submit proposals for the following items by Contract Line Item Number (CLIN): CLIN 0001: The Primary HRIT Receive Station (PHRS) shall acquire the HRIT data stream directly from the MSG satellite. The PHRS shall track the MSG satellite; receive, decode, and pre-process the continuous, uninterrupted MSG HRIT data stream into data files; and relay the compressed, encrypted data files for rebroadcast by the HRIT Broadcast System in CLIN 0002. The PHRS shall be installed and commissioned at NOAA Wallops Command and Data Acquisition (CDA) Station, Wallops, Virginia. CLIN 0002: The HRIT Broadcast System (HBS) shall continuously accept compressed, encrypted MSG HRIT data files from the PHRS in CLIN 0001, format the data files for broadcast over DOMSAT, and transmit the data stream over a 1.2 Mbps DOMSAT link to be provided by the Government for reception throughout CONUS by Secondary HRIT Receive Stations in CLINs 0003A and 0003B. The HBS system shall be installed and commissioned at NOAA Wallops CDA Station, Wallops, Virginia. CLIN 0003A: The Secondary HRIT Receive Station (SHRS) shall receive the MSG HRIT data stream via DOMSAT from the HBS in CLIN 0002; decrypt, decompress, and continuously process the data files; and provide display and storage capabilities for the end user products. Two (2) SHRS units shall be installed and commissioned, one at each of the following NOAA locations: World Weather Building, Camp Springs, Maryland and Wallops CDA Station, Wallops, Virginia. The Wallops SHRS shall perform system end-to-end quality monitoring functions. The Government intends to purchase at least two (2) of CLIN 0003A. CLIN 0003B: Additionally, the Offeror shall provide pricing for at least three (3) optional SHRS units identical to CLIN 0003A to be installed and commissioned, one at each of the following locations: NASA Johnson Space Center, Houston, Texas; AFWA Offutt Air Force Base, Omaha, Nebraska; and the University of Wisconsin, Madison, Wisconsin. The Government may elect to purchase up to three (3) optional SHRS units of CLIN 0003B for a maximum of five (5) SHRS units total. CLIN 0004: The Offeror shall provide pricing for optional System Maintenance onsite and via telephone on an on-call, annually renewable basis for up to three (3) additional years to commence after expiration of the warranties for the PHRS, HBS and each SHRS installed in CLINs 0001-0003B. CLIN 0005: The Offeror shall provide pricing for optional Training in System Operation and Maintenance and User Training for the PHRS, HBS and each SHRS installed in CLINs 0001-0003B. CLIN 0006: The Offeror shall provide a recommended list of optional Spare Parts, including prices and quantities necessary to maintain the systems in CLINs 0001-0003B in operational condition for at least a period of five (5) years. SCHEDULE CLIN 0001: PHRS; Quantity = 1; Unit Cost = \$ _____; Total Cost = \$ _____ CLIN 0002: HBS; Quantity = 1; Unit Cost = \$ _____; Total Cost = \$ _____ CLIN 0003A: SHRS; Quantity = 2; Unit Cost = \$ _____; Total Cost = \$ _____ The following are Option Items and the Government reserves the right to exercise these options in whole or in part, if at all: CLIN 0003B: SHRS; Quantity = 3; Unit Cost = \$ _____; Total Cost = \$ _____ CLIN 0004: System Maintenance; Quantity = 3 years with annual renewal; Unit Cost = \$ _____; Total Cost = \$ _____ CLIN 0005: Training; Unit Cost = \$ _____; Total Cost = \$ _____ CLIN 0006: Spare Parts; Unit Cost = \$ _____; Total Cost = \$ _____ Offerors shall

price an aggregate of all CLINs 0001-0006 as part of their proposal. For evaluation purposes, proposals shall be evaluated on the aggregate price for CLINs 0001-0003A, inclusive. CLINs 0003B-0006 are Option Items. CLINs 0003B, 0005 and 0006, if exercised, shall be no later than the end of the warranty period. CLIN 0004, if exercised, shall be on an annual renewal basis. The following provisions and clauses are applicable to this acquisition: FAR 52.212-1, Instructions to Offerors - Commercial Items; FAR 52.212-2 Evaluation - Commercial Items; FAR 52.212-3 Representations and Certifications - Commercial Items; FAR 52.212-4 Contract Terms and Conditions - Commercial Items; and FAR 52.212-5 Contract Terms and Conditions Required to Implement Statutes or Executive Orders - Commercial Items. The full text clauses can be obtained at the web site (FAR) <http://www.arnet.gov/>. Provision FAR 52.212-2 Evaluation - Commercial Items is amended to read as follows, "(a) ...The following factors shall be used to evaluate offers: Technical Capability, Schedule for Delivery, Past Performance and Price. A contract will be awarded to the technically acceptable lowest price offer." (Each as detailed below.) The following are appropriate under FAR 52.212-5: FAR 52.203-6 Restrictions on Subcontractor Sales to the Government, with Alternate I; FAR 52.203-10 Price or Fee Adjustment for Illegal or Improper Activity; FAR 52.219-6 Notice of Total Small Business Set-Aside; FAR 52.219-8 Utilization of Small Business Concerns and Small Disadvantaged Business Concerns; FAR 52.219-9 Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan; FAR 52.219-16 Liquidated Damages - Subcontracting Plan; FAR 52.222-26 Equal Opportunity (E.O. 11246); FAR 52.222-35 Affirmative Action for Special Disabled and Vietnam Era Veterans; FAR 52.222-36 Affirmative Action for Handicapped Workers; and FAR 52.222-37 Employment Reports on Special Disabled Veterans and Veterans of the Vietnam Era. Offerors shall provide a completed copy of the provision at FAR 52.212-3 with their offer.

REQUIREMENTS CLIN 0001: The Offeror shall provide an integrated Primary HRIT Receive Station (PHRS), complete with tracking antenna, receive equipment, hardware and software components, and associated installation, training and documentation. The PHRS shall track the Eumetsat MSG Satellite from NOAA's Wallops CDA Station in Wallops, Virginia and receive all MSG HRIT data and file types for rebroadcast over CONUS via DOMSAT. At all times during MSG transmission, the PHRS shall receive the compressed, encoded, encrypted HRIT data files, process the coding, and relay the encrypted, compressed HRIT data files to the HBS in CLIN 0002. NOAA will provide as Government Furnished Equipment (GFE) an antenna foundation compatible with a VERTEX-RSI Model KXL-7.2 antenna for this project. Offerors shall use this GFE antenna foundation. At a minimum, Offerors shall provide the specified 7.2 m antenna or one that is equivalent or better in performance. If an Offeror intends to propose an equivalent antenna, the Offeror shall be responsible for any modifications necessary to mount the alternate antenna to the GFE foundation. In either case, all Offerors shall provide a link budget analysis to demonstrate that their proposed design shall produce a continuous data stream with the selected tracking antenna. Any proposed equivalent antenna shall be demonstrated with data to verify that the antenna shall meet, or exceed, the HRIT Antenna Specifications available at: <http://www.eumetsat.de> under the MSG User Station documents available for download. Failure to provide such data will render the

proposal technically unacceptable. The Offeror shall provide and install all control and signal connections, including cabling, between the antenna location and the Operations building at the NOAA Wallops CDA Station. For pricing purposes, the maximum distance is 1000 m between the antenna location and Operations building. For purposes of connecting the antenna and the receiver in the Operations building, all Offerors shall provide fiber optic cables with Ortel 10341A Transmitters and 10450A Receiver modules. These units shall be provided by all Offerors as part of their proposals under this solicitation to ensure a commonality of equipment and spare parts maintained with other Wallops CDA Station antenna systems. To ensure optimum performance, the PHRS proposed by all Offerors shall include a matched filter receiver as specified in DADF User Station Design Justification - Baseband Processing (EUMETSAT Doc. No. MSG/SPE/128-C, Issue 5.0, dated 1999/08/23) and MSG Ground Segment LRIT/HRIT Mission Specific Implementation (EUMETSAT Doc. No. MSG/SPE/057, issue 4.1, dated 9 March 2001) available at <http://www.eumetsat.de> under the MSG User Station documents available for download. The following are mandatory requirements for the receiver: the matched filter shall have a raised cosine shaping factor, 0.7 roll-off, and 0.5 apportionment; and the receiver shall have less than 1.0 dB implementation loss. Complete details are available at <http://www.eumetsat.de> under the MSG User Station documents available for download. The PHRS shall continuously ingest, via live data stream, all HRIT files directly from the MSG satellite. The PHRS shall run the Forward Error Correction (FEC,) and provide decoded HRIT data files to the HBS for continuous rebroadcast via the GFE DOMSAT link. The PHRS shall provide any storage necessary for buffering to maintain and continuous HRIT DOMSAT broadcast. At all times during the rebroadcast, the HRIT files shall remain compressed and encrypted. Decryption keys shall pass from MSG through the PHRS and HBS to each SHRS. The PHRS shall process and display HRIT files received directly from MSG for monitoring the link performance. The PHRS shall also continuously decode, decompress, decrypt, process, and display HRIT products for monitoring MSG signal quality. The system shall continuously provide statistical data regarding Verterbi and Reed-Solomon code performance from which the signal to noise ratio (Eb/No) can be calculated and displayed in realtime. The PHRS shall have the capability to successfully operate unattended for up to 72 hours. Unattended operations shall include scheduled data acquisitions, data ingest, data dissemination, data processing, and data storage management, including removal of old/unneeded data. CLIN 0002: The HRIT Broadcast System (HBS) shall continuously receive compressed, encrypted HRIT data files from the PHRS in CLIN 0001 at all times during MSG data transmission and modulate the data for uplink through a GFE DOMSAT Earth station. The Offeror shall provide all equipment and cabling necessary to interface with the GFE DOMSAT Earth station at the NOAA Wallops CDA Station. For pricing purposes, the maximum distance from the Operations building to the DOMSAT antenna location is 1000m. The Offeror shall provide, at a minimum, a DOMSAT uplink modem modulator and any processing equipment necessary to accept files from the PHRS and continuously process them for rebroadcast. For the modem modulator, all Offerors shall provide the Radyne Comstream DMD15 Universal IBS/IDR Satellite Modem or equivalent. Any proposed equivalent modem shall be demonstrated with

data to verify equivalent performance. Failure to provide such data will render the proposal technically unacceptable. NOAA will provide as GFE 1.2 Mbps of transponder bandwidth on DOMSAT for the continuous HRIT data rebroadcast. The excess bandwidth is available for any error correction coding that may be required to close the link at the SHRS with a bit error rate (BER) of at least 10⁻⁸. All Offerors shall provide analyses to demonstrate how this BER is achieved. The HBS shall also continuously rebroadcast on the same GFE 1.2 Mbps DOMSAT link the MSG decryption keys received from the PHRS for local use by the SHRS. The HBS shall have the capability to successfully operate unattended for up to 72 hours. Unattended operations shall include continuous data ingest from the PHRS, and data and decryption key dissemination. CLIN 0003A: The Secondary HRIT Receive Station (SHRS) shall consist of a DOMSAT receiver modem demodulator, decryption unit, processing station, and necessary software to continuously ingest all HRIT data files and display the end products. The SHRS shall accept decryption keys relayed from MSG by the PHRS and HBS in CLINs 0001 and 0002 via the GFE 1.2 Mbps DOMSAT. The SHRS shall decrypt the MSG HRIT data files for processing, storage and display. For the modem demodulator, all Offerors shall provide the Radyne Comstream DMD15 Universal IBS/IDR Satellite Modem or equivalent. Any proposed equivalent modem shall be demonstrated with data to verify equivalent performance. Failure to provide such data will render the proposal technically unacceptable. The Offeror shall install and commission the SHRS at each location. CLIN 0003B: The optional Secondary HRIT Receive Station (SHRS) shall be identical to the SHRS in CLIN 0003A. For those optional SHRS installation locations that are already equipped for reception of Meteosat data broadcast via DOMSAT, the SHRS shall be capable of reusing, in a shared configuration, the existing DOMSAT antennas. The Offeror shall install and commission the SHRS at each optional location. CLIN 0004: As an option, the Offeror shall propose pricing for System Maintenance, on annually renewable, on-call basis onsite and via telephone for three additional years after expiration of the warranties for the PHRS, HBS, and each SHRS. The proposal shall recommend the level of maintenance support to be provided by the Offeror, or the Offeror's agents, to maintain reliable system operations. CLIN 0005: As an option, the Offeror shall propose Training on Operation and Maintenance and User Training on the systems in CLINs 0001-0003B. Training on the use of the PHRS, HBS and SHRS shall include, as a minimum, theory of operation, maintenance, and use and development of products from HRIT data files. On-site training shall be priced separately for each installation location. CLIN 0006: As an option for purchase, the Offeror shall propose a list of recommended Spare Parts, including prices and quantities, necessary to maintain the system in operational condition for a period of at least five years beyond the warranty period. As a minimum, the spare parts list shall include one each of any unique hardware necessary to maintain and operate the system. Factory and On-Site Acceptance Testing. The functionality of the system shall be demonstrated by a Factory Acceptance Test (FAT) at the Offeror's facility prior to shipment. At a minimum, the Offeror shall demonstrate during the FAT that the PHRS in CLIN 0001 has the capability of receiving data continuously and directly from an MSG satellite and can provide data in a valid format through DOMSAT to Secondary HRIT Receive Stations. The vendor shall demonstrate, during factory and on-site

acceptance testing, that the delivered system has the performance capability to continually ingest, display, store, and rebroadcast HRIT data over DOMSAT to multiple SHRS systems. A test plan shall be provided at least 30 days prior to testing and canned test data files shall be provided with the PHRS in CLIN 0001. Delivery and Installation. The Offeror shall deliver and install all the system components and provide all interconnecting cabling to make the systems ordered for CLINs 0001-0003B fully functional. For installation at the NOAA Wallops CDA Station, all interior equipment shall be mounted in racks. Coordination and oversight will be provided by the local Government personnel. All equipment shall be compatible with United States power system (120V 60 Hz) and the Offeror shall provide circuit requirements for the proposed equipment. Arrangements for local assistance at each of the installation locations are the Offeror's responsibility. The Offeror shall submit plans for installation and testing within 30 days of contract award for Government approval. Documentation and Training. Offerors shall provide documentation on Operations and Maintenance and a User's Guide for all delivered system components. All documentation shall be delivered in the English language with both paper and electronic copies. Within thirty (30) days of contract award, plans for documentation and training shall be submitted to the Government for its approval. Warranty and Maintenance. All Offerors shall provide a one-year warranty on all parts and equipment delivered and installed. This warranty shall be a mandatory requirement. The Offeror shall provide hardware and software maintenance on-call support during the first year after commissioning under the warranty. All Offerors shall recommend the level of maintenance to be performed on-site by site personnel. NOAA/NESDIS Standards. All Offerors shall comply with the standards listed below, available on the public Internet at <http://osd.noaa.gov/hrjt>. Standard No. S24.801 - Preparation of Operation and Maintenance Manuals Standard No. S24.802 - General Requirements for Command and Data Acquisition Station Electronic Equipment Standard No. S24.804 - Training on Electronic Equipment Standard No. S24.805 - Spare Parts Proposal Requirements. An acceptable response to this RFP shall include separate Technical, Schedule, Past Performance and Price proposal sections. The Technical Proposal shall not exceed twenty-five (25) pages, plus publicly available vendor materials, if deemed applicable and appropriate by the Offeror. System hardware, operating system and application software proposed by the Offeror shall be identified in the technical proposal. The Schedule for delivery shall include activities for development, factory acceptance testing, shipping, delivery on-site, installation at each site, and acceptance testing, not to exceed five (5) pages. The factory acceptance testing shall be conducted at the Offeror's facility prior to delivery and shall demonstrate the capability to receive MSG HRIT data files and rebroadcast them through DOMSAT for reception by SHRS systems. Offerors shall provide a Past Performance survey of current and/or previous customers, including for each contract: the total contract value, proposed and actual schedule, contract status (identify any claims), and the name, current address and telephone number of a point of contact. The Offeror's past performance surveys shall not exceed three (3) pages for each contract. The Offeror shall submit past performance for at least three but not more than five contracts, which may be either U.S. Government, commercial, or non-U.S., that have received the same or similar products required by this solicitation, during the past three

(3) years. The Offeror's Price Proposal shall include a price breakdown for each CLIN 0001-0006 required above. For CLIN 0004 the Offeror shall provide a composite hourly labor rate which includes applicable direct labor, other direct charges, general and administrative costs, and any other applicable costs and profit. All prices shall be expressed in U.S. dollars. For any equipment or component items shipped from a foreign location, the Offeror shall be responsible for any and all import duties and tariffs. The Offeror shall arrange for receipt and handling of items through U.S. Customs, including all fees. It is the Government's intent to make an award based upon initial offers without entering into discussions or negotiations. The Government plans to award a Firm-Fixed Price contract. Award will be made to the responsible Offeror whose offer represents that proposal which is the lowest cost, technically acceptable offer. While it is the Government's intent to make award based upon initial offers, the Government may, nevertheless, determine during the evaluation period that it is necessary to conduct discussion. In that case, the Contracting Officer (CO) will proceed to establish a competitive range and conduct negotiations with the firms in that range. Offers shall be submitted to Department of Commerce, NOAA, Office of Finance and Administration, 1315 East West Highway, Room 10122, Attn: Michael Knowles, Silver Spring, MD 20910-3282, by 3:00 p.m. (EDT), August 30, 2002. Proposals shall be submitted on the Standard Form 1449 with an original paper copy and five copies on CD-ROM, with separable Price and Technical proposal sections as specified. The point of contact is Michael Knowles, who can be contacted by email at mike.knowles@noaa.gov. It is the responsibility of the Offeror to ensure that its proposal is received at or prior to the noted date/time in this announcement.

Original Point of Contact

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Place of Performance

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